

REMARKS

Claims 1-26 are all the claims pending in the application. Claims 1-26 presently stand rejected. Claim 1 is amended hereby for clarification purposes only and not for any reasons related to patentability. Furthermore, the scope of claim 1 has not been altered by virtue of the amendment. Claims 16 and 25 are amended to correct typographical errors.

According to the Examiner, the Office Action mailed June 15, 2004 supercedes the Non-Final Office Action mailed April 8, 2004.

The Examiner has indicated an objection to the Specification on the PTO-326 attached to the April 8, 2004 Office Action. However, no PTO-326 form was included with the Office Action mailed June 15, 2004. Furthermore, no remarks are included in the Detailed Action portion of the Office Action in regard to the objection to the specification. Accordingly, Applicant assumes that the objection to the specification is either withdrawn or that it relates to the nonenablement rejection under 35 U.S.C. § 112, first paragraph, and is addressed by addressing the nonenablement issue with respect to the claims. If Applicant's assumption is incorrect, clarification of the objection to the specification is requested.

Additionally, it is noted that the Examiner crossed-out two references in the PTO-1449 form returned with a prior Office Action dated December 4, 2002. Specifically, the Examiner crossed-out and, thus, apparently did not review, the two Japanese references that correspond to USP 5,819,016 and USP 5,822,450, respectively, which were also listed in the PTO-1449. It is assumed that the Japanese references were crossed-out because they were deemed duplicative of the U.S. counterparts. Confirmation of this assumption is requested.

In regard to the claim rejections, claims 1-26 are rejected under 35 U.S.C. § 112, first paragraph and claims 1-26 are further rejected under 35 U.S.C. § 103(a) as being unpatentable over Marks (USP 6,025,847) in view of Hsu (USP 5,640,468) and further in view of Crandall et al. (USP 5,552,984). For the reasons set forth below, Applicant respectfully traverses the claim rejections and requests favorable disposition of the application.

Argument

Rejections Under 35 U.S.C. § 112, first paragraph

The Examiner asserts that claims 1-12 are rejected under 35 U.S.C. § 112, first paragraph, as not being enabled by the specification. Specifically, the grounds of rejection merely assert that “neither the evaluation and control unit, nor the process of identifying components in picture data, nor the claimed deriving hypotheses, is sufficiently described in the specification.” This assertion, without more, however, is insufficient to establish a *prima facie* case of nonenablement against at least claim 1. Specifically, it is incumbent upon the Examiner to provide a rational basis that the specification is not enabling with respect to the identified operations and the Examiner must provide some reason why the disclosure is insufficient or why the Examiner does not believe the statements contained therein.¹ Here, the grounds of rejection fail to provide any such reasoning and, thus, a *prima facie* case of nonenablement has not been set forth.

¹ See, e.g., *Staehelin V. Secher*, 24 USPQ 2d 1513, 1516 (B.P.A.I. 1992).

In regard to the evaluation and control unit, the Examiner does assert, however, on page 5 of the Final Office Action, that the specification fails to “sufficiently describe functional operation [of] either the process or the ‘automatic function’.” It is further asserted that “one skilled in the art would not be able to create an ‘automatic function’ without specific details on how the automatic function operates.” Applicant submits, however, that the *specific details on how the automatic function operates* are not within the scope of the claims and, thus, failure to adequately disclose such details in the specification is not an appropriate basis for a rejection of nonenablement under 35 U.S.C. § 112, first paragraph.

More particularly, it is well settled that a patent application is required to enable an invention only with respect to the claimed subject matter.² In addition, the claims may not be rejected as nonenabling under 35 U.S.C. § 112, first paragraph, when details with respect to the claimed subject matter are not directly disclosed in the specification but are within the level of ordinary skill in the art. That is, the specification need not recite details of the claims where one of ordinary skill in the art would consider these details obvious.

In regard to claims 1-9, 11-21, 23, 25 and 26, the automatic function, and specifically the details of how it is carried out, are not within the scope of the claim. For example, none of these claims recites this feature. In regard to claims 10, 22 and 24, i.e., the only claims that do recite an automatic or automated function, Applicant submits that the details of how the recited automatic function is carried out are either sufficiently explained in the application as originally presented or they are within the level of ordinary skill in the art. For example, original claim 10

² *In re Geerdes*, 491 F.2d 1260, 180 USPQ 789 (C.C.P.A. 1974).

recites, “the automatic function automatically selects and positions the installation components, and ... adds the automatically selected and positioned installation components to the virtual installation model.” Moreover, a skilled artisan would understand from reading the specification, in conjunction with the drawings, that the functionality of the evaluation and control unit and, in particular, the automatic function, would easily be handled by a microprocessor or a microcontroller running appropriate software. It is well known that a microprocessor is a type of device that digitally processes image data that is stored in memory devices.

The Examiner asserts that claims 13-26 are rejected under 35 U.S.C. § 112, first paragraph. Specifically, in regard to claim 13, the Examiner asserts that the specification “does not reasonably provide enablement for ‘comparing picture data to identify installation components’”, because no specific “algorithm or technique” is disclosed. In response, Applicant submits that the details of how the recited comparing and identifying functions are carried out are either sufficiently explained in the application as originally presented or they are within the level of ordinary skill in the art. For example, claim 13, as originally presented, recites “comparing information data of installation components of a component library with the picture data of the real installation to identify at least one of the installation components in the picture data as an identified installation component.” A skilled artisan would know, for example, from reading paragraphs [0009], [0012], [0013], [0030], [0033], [0036] and [0039] of the published application (2001/0025229) that geometric attributes, e.g., size, shape, etc., with respect to the

installation components in the library and the stored picture data of the real installation, are compared in order to identify a matching installation component.

For the above reasons, Applicant respectfully submits that either the respective subject matter of claims 1-26 is satisfactorily enabled by the instant specification, or a *prima facie* case of nonenablement has not been set forth. Accordingly, the rejection under 35 U.S.C. § 112, first paragraph, should be withdrawn.

Rejection Under 35 U.S.C. § 103

Applicant respectfully submits that the proposed combination of Marks, Hsu and Crandall et al. fail to teach or suggest all the required features of the claims. Specifically, it is submitted that, contrary to the assertion of the Examiner, Hsu and Crandall et al. fail to disclose the evaluation and control unit, and its attendant features, as alleged by the Examiner.

For example, the grounds of rejection assert, on page 8 of the Final Office Action dated June 15, 2004, that Hsu “teaches a system and method for *identifying* components by *comparing* component information data (from a knowledge base) with real picture data” and “*evaluating* (deriving hypotheses via the image system) identified components (objects) in the picture data.” The grounds of rejection have already recognized that Marks fails to teach these features (See Final Office Action, Page 8), but the assert that Hsu teaches these features in the Abstract, Summary of the Invention, Figs. 1-4, 6, 8a-10b and Col. 13, line 15 through col. 14, line 55.

Assuming, *arguendo*, that the grounds of rejection are correct regarding the above espoused teaching of Hsu, the requirements of claim 1 are still not met. Specifically, claim 1 requires, *inter alia*, that the evaluation and control unit compare information data of the

installation components with the picture data of the real installation and identify components in the picture data as respective ones of the installation components. For example, as disclosed in paragraph [0030] of the published application (2001/0025229) and in reference to FIG. 1, “[t]he evaluation-and-control-unit 5 performs an image analysis, wherein geometric information contained in the digital picture data 4 is identified and matched with geometric information contained in the component information 13.” According to one disclosed embodiment, i.e., an automatic operation,

the individual components of the component library are successively called up and the evaluation-and-control-unit 5 attempts to assign them to the digital picture data 4. The evaluation-and-control-unit 5 uses a predefined search key to evaluate the information data assigned to the respective component, which is to be placed in the digital picture data 4 of the real installation. A first evaluation relates to the geometric data associated with this component and a second evaluation relates to the structural data assigned to the component.

(Paragraph [0033] of the published application (2001/0025229))

The Object Extraction procedure identified in Hsu, i.e., at column 13, line 15 through column 14, line 55, does not teach or suggest these recited features. Specifically, in Hsu, the individual objects are generated by one or more of a number of methods, e.g., Binary Image Generation (col. 14, lines 14-19), Connected Components Identification (col. 14, lines 20-24), etc. That is, in Hsu, information data relative to the objects is not compared to picture data of the actual installation, as disclosed and claimed. To the contrary, in Hsu, the original image is processed, first by segmenting certain features, and then objects representative of those features are generated based on an apparent novel approach of using “a single color (also known as ‘single band’) or a single-feature-based image.” (Col. 13, lines 23-26).

Crandall et al. also fails to teach or suggest the evaluation and control unit or its attendant features discussed above. Specifically, Crandall et al. is directed to a diagnostic system that incorporates interconnected virtual components that parallel components of a real system. (Col. 1, lines 6-9). Crandall et al. does not, however, compensate for the deficiencies discussed above with respect to Hsu. That is, Crandall et al. does not teach or suggest an evaluation and control unit that compares information data of the installation components with the picture data of the real installation and identifies components in the picture data as respective ones of the installation components.

Crandall et al. discloses “a two-level diagnostic system including a first level in which faulty line replaceable units (LRUs) are identified so that the LRU can be removed quickly and replaced” and “a second level [that identifies] shop replaceable units (SRUs) in the faulty LRU.” (Col. 1, lines 53-58). A virtual model is defined using virtual components, the respective functionalities of which are based on “on-line models, database information, look-up tables, ‘real-time’ data, and/or off-line models which simulate the performance of the corresponding real component.” (Col. 4, lines 21-24). Crandall et al. does not anywhere disclose a device that compares information data of the virtual components to picture data of a real system to identify components in the picture data of the real system as respective virtual components.

For at least the above reasons, the proposed combination of Marks, Hsu and Crandall et al. fails to teach or suggest the evaluation and control unit as claimed in independent claim 1.

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appln. No. 09/750,673

Furthermore, for analogous reasons as those discussed above in regard to claim 1, the proposed combination of references fails to teach or suggest at least step (b), i.e., the comparing step, of independent claim 13 and the processing unit of independent claim 25.

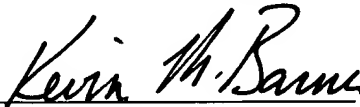
Accordingly, all of claims 1-26 are patentable over the proposed combination of Marks, Hsu and Crandall et al. and the §103 rejection against these claims should be withdrawn.

Conclusion

In view of the foregoing amendments and remarks, the application is believed to be in form for immediate allowance with claims 1-26, and such action is hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, he is kindly requested to **contact the undersigned** at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,


Kevin M. Barner
Registration No. 46,075

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE

23373

CUSTOMER NUMBER

Date: September 17, 2004

Attorney Docket No.: Q59736